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Rose

I think of you
to Ecuador Peru & Bolivia.

May 25

Left Washington

May 25

Sailed for Panama
By Steamer "Panama"
for Cristobal.

May 30

Landed for a few
hours at Port au
Prince. Collected
insects on mountain
side above the "Mound-
on-Horse" (19869-
19890)

June 2

Arrived Bristol. ^{Washington} June 1

June 3

Went to Miller, Twali
Hall. Between June 2
and June 9 I consult-
ed with Mr. Zelt in
charge of the Entomo-
logical Laboratory at

Agilone, called on the
resident of Ponce de Leon
who placed a car^(auto)
at our disposal for
ride to Old Ponce de Leon.

Visited site of the new
Gorge Memorial of
which the owner has
been kind, took photos
of this region. Saw
wildlife & new Santa
Teresa Hospital.

Called on ^{or} Mr. Morra
of Canal zone. Visited
the Brown Colorado Island
in Salinas Lake in company
with Jack Cook McCoy
and others.

June 5 -
Returned to Cristobal. Had
an interview at the
Washington with Mr.
Powers in regard to the site
for the Est. and man

The Gorge Memorial
for a Marine Biological
Laboratory.

June 10
Boarded the steamer
Prallaga (Poniente) for
Guayaquil. Passed
through the Canal remain-
ing over night at Balboa
to load Cedar logs.

June 13
Stopped at Buenaventura
Colombia for a few hours.
Collected fishes about
one hour along by
to the river.

June 14
Landed Guayaquil.
Mr. Lowe had sent a
man who took charge of
loading, passing baggage
through Customs, etc.
Went to Hotel Ritz. Mr. Lowe
in his plantation & could
not find me. Called on

F.W.
Dr. Godfrey American
Consul General. My
day - moved to Hotel Commo-
dore for room, looking
much & dinner out.
Between June 16 and 21
made various arrange-
ments, collected around
city. Called on Gov. of the
Province of Guayaquil who
gave a general letter in
Spanish to officials etc.
Called on Mr. Paget in
charge of the terminal,
Mr. Powell in charge of
the Cable Co.

June 21
In the night of June 20
went on launch to
a camp of the Standard
Oil Co. Landed at
Bajen and went by truck
to the Oil Camp. Was
met by Mr. Orr who

is the geologist of the company
and who came down on
the boat with us. Mr. Clark
is in charge of the camp.
Made collections June 21
to 24. Had expected to re-
main only 2 days & had
brought only inner shirts. Some
of specimens in bad shape
on return to Guayaquil.

June 25
Returned to Guayaquil.

June 26
Until June 28 collected
around Guayaquil and
prepared for trip to Guayaquil.

June 27
Started for Guayaquil & AM.
I had stored at Dr. Godfrey's
office the 2 boxes of inner
shirts and the ~~inner~~ trunk
with some extra paper &
supplies. Took my things
also in Guayaquil. All baggage
went hand baggage with

pay special rates (2³⁵ cents per
mile to (single)).

Arrived at Quincy at
noon & got two rooms in
the Hotel Wells (Hotel Wells)
over for lodging & some
for my stonework.

Called on Mr. Dobbie
General Manager for
Ry. he gave me a permit
to ride on freight cars
and to use his room at
the Station in Quincy
where I wished to stay
over night there.

July 1 ^{page 30}
Went to Milagro and
arrived at the Ingenio
Valdez as guest to July 3
Mr. Meyer superintendent.
Mr. S. Perez Comptroller is Manager.
Mr. Cleveland had taken
me to Mr. Perez's office in
Guaymas. Mr. Perez

gave me letter to Mr. Meyer.
However Mr. Perez was at
the Sugar Factory when I
arrived. I called yesterday here.
Mr. Platts the chemist is a
graduate of the U. of Mich.
Mr. Pallomo was with
me collecting. Mr. Pappan
had given me letters to
Mr. Pacheco & Mr. Cleveland.
On return stand over night
at Buena Vista & come to Milagro
on freight July 3.

July 3 & 4
Drying the Milagro plants
July 5
Went to Buena Vista. In Guaymas
Mr. Cleveland had invited
me to come here and gave
me a letter to his superin-
tendent Mr. Martinez Valdez.
But Mr. Cleveland was
at the plantation when
I arrived. It is in bananas

Collected July 5, 6, & 7. Very
wet raining practically
every day. Got a large
collection. Returned to
Bucay night of July 8 &
remained in the ~~Doldor~~
room taking the freight
next morning.

The Cleburne has a pasture
of Gomoloti (a species of
Chrysopsis (20470) which
gives excellent promise as a
forage plant. It is well in
the region. The pasture was
planted from the roots.

Went to get seed but is out
of season and has not
appeared to be fertile.

Goma - name applied to
Aspalathus conjugata.
Papa - name applied to
bushy grass.

July 8

Returned to Buena Buena

Letter from Mr. Rorer, forwarded
from Guayaquil. He would
like to come over from Guayaquil
Monday. I am trying to make
arrangements for the visit
but of course cannot go Monday
which is July 9.

July 10

Telegraphed ^{yesterday} ~~last night~~ to Dr. Godding
to get word to Rorer. Received telegram
from Dr. G. last night (8.30) saying
he had got word to Rorer through
Mr. Ayala who lives near here.
We went down on the noon train
arriving Chobo about 5:00 PM.
No horses there to meet us. Mrs.
Anderson of the store said Rorer had
sent horses for the morning (up)
train. We were able to get two
horses ~~and~~ Mrs. H. & myself and
a driver for the pack way and
the baggage (except the press)
My saddle was the boys - of wood
& shoe stirrups on short reins
for his length (very uncomfortable)

We had a hard trip arriving
about 8 PM - nearly two hours
after dark. My H was very much
exhausted. (3 hours ride)

Staid with Mr & Mrs. Rorer in the
remainder of the week - a very
pleasant visit. I made collect-
ions in the vicinity & dried them
on a large lamp which
18 sheets of corrugated paper &
about 20 lbs. Got all the
specimens dry.

July 15

Left Mr Rorer's Sunday after-
noon, going by horse to

Michapa. We had received an
invitation to stay over night
at the Perry place (Ingenio Valley)
where I had previously been.
Very comfortable. Left on the
next morning about 8 AM for
Quincy Monday morning (July 16)

July 17

Started about 8 AM about
week. Left for Naborpate

Left on arrival per steamer.
Arrived about 8⁴⁰. Took a freight
at 6:00 for Bucay, where I
staid in Mr Dobbin's room
returning on morning freight
to Dingra (July 18)

July 18

Spent the day arranging collec-
tions and writing.

July 19

With Mr. Rorer went to Alamos
on freight. Rorer dined

July 20

Went on road toward Cuicaca

July 21

Went with Mrs. Whitcomb to San Jose
Caring plants collected. Went
to conference with Dr. Parker
as to Mrs. H's condition for going
to Cuicaca. Dr. Parker arrived Sunday

July 23

Saw Dr. Parker who advised
against my going to Cuicaca.
It was then decided that she
return to the States. It was

also decided that the train
on the Cuban Free Road
Palma Wed. 25. Dr. Suding
telegraphed to Dr. Gobbi
to send books to Guayaquil
they reached there Monday night
(24). 24 & 25 were festival
days (holidays). Dr. Suding
arranged with someone
for passport (permitted
leave). Reported 3:00 at bank

July 25
Arrange baggage - separating
my bag + giving her bag
books. Went out + did
much business. But vacu-
ation certificate, passport,
tickets. Books packed up at
11⁰⁰ AM. Finally got out
about the noon which
reached about 1³⁰. Found
that I had not given
her the trunk keys.

July 26
Packed plants & got out

Paper, sent baggage to Guayaquil

July 27,
Went to Malaga + stayed over night
with Mr. Poy + Miss (sic) + I went
morning (27) went to Guayaquil

July 28-29
Worked on my own account & packed
for Emilio.

July 30-31
Went to Guayaquil, Arrived Tena night
Aug 1

Baggage did not reach Emilio
Wed Aug 2. Saw Mr. McWilliam

Aug 2
Called on Presidente with Mr.
Bading, also on Minister of
Agr. (Masoney) & Director of
Agr. (Mingo)

Aug 3-4
Arranged for trip to Tulcan
Mr. McWilliam goes as in-
specter. Henry George as helper.
Aug 4 is Sabbath for Mr. McW
(9 day Adventure)

Aug 5

Left my horse & rode with
3 saddle horses & our camp
mule, left my baggage at
the H. K. office. Spent night
at the Providence Ranch
Room with no furnishings.

Aug 6 went to Chavala
Went to Ibarra, saw the
Tarmaya (for fish) and saw
Sick, the son of the old
lady on ranch El Remoncado

Aug 8
Went to El Remoncado, arriving
late.

Aug 9
Went to Tulum.

Aug 10
Returned to El Remoncado
collecting on way.

Aug 11
Spent day at ranch
collecting.

Aug 12
Went to Ibarra.

Aug 13

Went to Malchingui.

Aug 14

Went to Pomariki - 10 miles
from Quilo.

Aug 15

Arrived at Quilo 5 am. 155/16
drying and arranging.

Aug 16

Started at 4 P.M. for Pichincha
a high mountain near Quilo
2 saddle horses. Much ranch in
valley at base of mountain at
5:30 stayed all night here. Vanila
Antonio & Tate who are camping
near the ranch house.

Aug 17

Ascended Pichincha ^{30 am} Left
Quilo at 13500 ft. Took way
from ranch as guide shepherd
reached edge of forest at 11⁰⁰
Collected on way down. Cloudy at
summit and got no view. Arrived
Quilo about 8⁰⁰ pm. Barometer showed
at base of forest to be 15000 feet

Aug. 18 + 19

Drying plants & packing for return to Guayaquil.

Aug. 20 & 21

En route to Guayaquil

Aug. 22 - 25

In Guayaquil waiting for boat to Santa Rosa. Separated baggage to take on Loja trip. Remained to store with Dr. Goding. Got new lamp & dried collections from Pichincha. Took boat for Santa Rosa evening of Saturday Aug. 25. Slept in deck chair. Accompanied on trip by Mrs. McWilliam.

Aug. 26

Arrived at Port Bolivar about 9⁰⁰ and remained about 3 hours.

I rode on a little railroad 4 miles and walked back making a collection. Arrived at Santa Rosa about 8⁰⁰ and remained at the company's store rooms over night.

Aug. 27

Started for Portonelo (the

gold mine). The company provided 2 animals & we provided 2 victors. Remained over night at the company's store houses.

Aug. 28

Passed over a severe trail quite muddy in places - good collecting. Arrived at the mine before dark.

29 - Sept 1

At the mine (Portonelo), good quarters. On 30 & 31 had horses and made collections in evening. Had accident with lamp and burned a press full of plants, destroying straps, press, corrugated paper & boxes. Some of the plants were saved and others recollected. Went down into the mine with Mr. Kellogg the superintendent.

Sept. 2

Started for Loja. Had 2 saddle horses & 2 camp animals. The driver also rode. The first

night was spent at El
Tambo - a shelter where I put
up my cot. We carried food
& got hot water - sometimes
milk & eggs.

Sept 3.
En route to Loja. Spent night
at Latoma

Sept 4
Arrived at Loja before dark.

Sept 5
Spent day at Loja drying
plants.

Sept 6
En route to Cuenca. Spent
first night at San Lucas.

Sept 7
En route to Cuenca. Reached
Cuenca.

Sept 8
Spent day at Cuenca. Some severe
trouble and could not
dry plants.

Sept 9
En route to Cuenca. Spent

night on paramo at 11,000 feet
found a green covered mused
shelter. Collecting good. Usual
stopping place is Nabor but this
would not give him enough for
collecting on the paramo.

Sept 10
Arrived at Cuenca before
dark, the mules nearly exhausted.

Sept. 11
Spent day at Cuenca drying
plants. As I had no corrugated
paper, we had flat strips
made at Loja to place between
driers. These worked fairly
well. Could not get all day
long finished everything up to
Loja.

Sept. 12
En route to Tungurahua. Spent night
on paramo beyond Tambo
at 11,000 ft. Took mules from
Cuenca to Babian & mules from
there.

Sept. 13

Collecting good. Arrived at
Huirpa before dark.

Sept 14

Mr. McWilliam took train
for Quito. I spent day drying
plants. Had accident with
stone but not much damage
done.

Sept 15

I went to Guayaquil. Got mail
at Dr. Godin's.

Sept 16-18

At Guayaquil drying remainder
of plants. I bought a new
stone as the old one was
giving trouble. Took things to
Dr. Godin's office.

Sept 19

Mr. Wicks to Ambato

Sept 20

Arrived at Ambato. Visited
the Montalvo brothers (letter from
Papenre) and Mr. Martinez

of the Quinta Normal (letter
from Papenre).

Sept. 21

Collected along Pz toward
Pachacocha getting 46 numbers.
Packed up y paper which
I had left in Quito.

Sept 22*

In company with Mr. McWilliam
I started for the Concha. Two
riding horses and a cargo
horse (also the owner of the horses,
riding a fourth horse, he looking
after the cargo. We arrived at
Baños in the evening. We made
no collections until the return trip.
Visited the hot spring.

Sept 23

Continued toward Mora. The owner of
the horses hired a young man
to go on with me and himself
returned to Ambato. We also

* Sept 22. Mr. McWilliam arrived on horse from
Cultra Friday evening. Saturday I dried the plants
collected and prepared for the trip to Ambato.

hired a second boy to help
us collect and to help with
the pack. From Ambato to
Baños the road is good, not
much fall - Baños 6000 ft.
The vegetation is about the
same as around Ambato -
dry. Just before reaching
Baños the river cuts a
deep gorge and the scenery
is beautiful. From Baños
on the road is good and
the scenery beautiful. The
road follows the gorge of
the river. There is a ^{water} fall
below Baños. The climate
becomes more moist, there
is an increasing amount of
rain and the vegetation soon
becomes tropical. The
German Exploration Co. has
constructed a good trail
to CASHUCCO - some muddy
spots but in the main a good

road. We arrived at CASHUCCO
about 8:00 p.m. There is a
good rest house here. The
road was reported to be very
bad from here to Mera, so we
decided to remain here for the
night and return in the
morning. We collected until
dark. I put up my cot & the W
slept on the floor. The building
has a split bamboo floor on
the second story - no sides - a steep
roof - lower story only the ground with
the supporting pillars of the building.

Sept 25
Collected on the return made
a large collection - 5 bundles
Reached Baños for night.
Fortunately no rain. Several
showers on the preceding day.

Sept 26
Continued the return reaching
Ambato in the evening.

Sept 27

Returned to Quito

Sept 28-30

Remained most of the time in the hotel drying the large collection of plants. Bought a wool poncho. Sent letters to Hubert & Gagnepain (written in Ambato).

Oct 1

Mr. Duane & I called at Amer. Legation on way to see Father Miller at Cotacallas. While at the Legation Father Miller called to send in the Legation mail a package of plants to Mr. Killip in Washington. We are to meet Father Miller at 2 o'clock to examine the Sodiro Herbarium. Spent ~~the~~ afternoon in herbarium examining the grasses. Father Miller allowed me to select a set of duplicates. The herbarium is at the Colegio de San

Gabriel. Here are Sodiro's collection & also some of Father Miller's. There are usually unmounted (& some mounted) duplicates distributed with the specimens. The College wishes to sell plants I wish to pay \$10.00 per set for the duplicates I took (80 specimens). They would undoubtedly sell a complete set of duplicates.

Oct 2

Spent the forenoon at the herbarium and finished the grasses. I checked off the species in Sodiro's list. Some species were not found. There may be at the University of Quito. An endeavor was made to go here but the professor in charge made an appointment for 10 o'clock the next day.

which were too late for
my plans. In the afternoon
called on Mr. Söderström
and saw also Gustaf & Tait.
In evening called on Mrs. J. J. J.
Oct 3

En route to Verbum. Arrived
4³⁰. Mr. Söderström & Mr.
McWilliam had spoken to
the agent here who permitted
me to stop in the station bldg.
There are 2 telegraph offices, there
are two rooms, the back room
being used by the agent for
living & sleeping room.
I put up my cot. Under the
pad & put two white sacks.
Over me I had blanket, horse-
blanket, wool parcels & rain
parcels. I slept in heavy wool
underwear, wool shirt
waist, leather vest, heavy coat
sacks & hat & slippers. Was none
too warm. Verbum is on a

porcupine (1184 ft) a young
porcupine, and is the highest
porcupine on the G. & Q. road.
A hut next door houses
the section boss & family
and some workmen. The
section boss gave me hot water
& eggs. I furnished sugar &
crackers & condensed milk.

Oct 4
With a pack to carry my
pump. I set out at 6⁰⁰ for
Chimneygo. Walked steadily for
3 hours & then rested 15 minutes.
At about 11⁰⁰ reached the
limit of vegetation at about
1500 ft. Collected on the
return, reaching Verbum at 5³⁰
The neighboring ridges snow
seemed to be at about the
1500 ft level, stretching down
in places. The main snow
field is higher, probably 1000 ft
higher. Many species are
the same as on Pictincha

Oct 5

Spent the forenoon collecting
along the Rio Grande of ~~Mexico~~
and the 2 days got 113 mammals
In the afternoon packed up &
took notes on a part of my col-
lection. Left for Pinar del
about 6:00

Oct 6

En route to Guayaquil.

Oct 7

Spent day (Sunday) trying
the Webern collection.

Oct 8

Find there is a Peruvian
boat on Oct 11 which I hope
to take. Flant day 8-9-10 -
Hope to arrange matters
nowhere.

Oct 9

Packing in morning. Separating
things at Dr G's office
Afternoon prepared account
for 1st quarter - Temp. Sp.
Disburs. Agent.

Oct 10

Mr McWilliam helped.
Got things from Dr G's office
to hotel & from hotel to Dr.
G's office. Things to go to Peru
at hotel - things to return to
U.S. at Dr G's office. Packed
things at hotel. Called on
Angels in evening.

Oct 11

First business day of week
All others, 8-10, free days.
(12 + 13 also free days)
Mr McW. helped. Bought
box to hotel rent of places.
Remnants of paper given to
Mr McW. & used both
trunk - boxes for places.
Since there are 2 trunks
(Museum trunk & new square
trunk) and 3 boxes to be shipped
to U.S. Left the shipping in
charge of Mr McW & Dr G.
Will go over Peruvian by boat

Next week. Dr S got a
 piece of money means for
 taking the boxes to boat
 (by his office to wharf &
 wharf to steamer). Paul
 Dr S. the 12th sales for the.
 Left on his way with the

addressed U.S. Department of
 Agriculture, Washington D.C.,
 Care J. R. Brown, Agent, New York.
 A.S. Hitchcock. The 3 blank tags
 for blanks for bill of lading
 (11 boxes - 25 each) were
 at the agent of Pan. Ry Co., Guymon
 and wrapped with them
 to keep them secret.

While packing my stuff.
 We got permit to seal - blank
 at office of P.O. and 20⁸⁰
 taken to Governor's office filled in
 & signed by Governor, 2 photos
 attached.

Got wire at Peruvian
 Consulate office (said to be neces-
 sary which I had use at N.Y.)

Then got (cash, Ser. 225.30
 Got funds at bank,
 I had no expense \$1700.00
 Got in of change as follows
 Draft on New York \$1158.
 Sundry @ 5⁰⁰ (5300⁰⁰) 60.
 American bills (105 + 203) 100.
 20 Peruvian pounds (10 Soles) 82.
 \$1700

I have also express etc and
 transfer etc received from
 the same in payment of
 200⁰⁰ borrowed by me 200.

And drafts on N.Y.
 and transfer etc taken
 from Washington
 6 of \$100 600.00
 4 of 50 200.00 800.

Cash Amer. bill 20
 " 2-5 100 Ecuador bills
 exchanged here in Lima for 80 Soles

* Amer. Express at 50-50-20-20- 180
 Amer. Bankers Am. etc 20-20-20 60
 200

Returned 3 capsules of serum for bacil-
lary dysentery & received full value (245)
at drug store.

Brought some photos at Gran's
Went on board boat 4:30
sailed 4 AM. in next
morning.

Oct 12

in route. Weather cool
Had to put on my sweater.
My nose is in my trunk! Not seasick!

Oct 13

Arrived at Paita in morning.
Went ashore for an hour or
two. The driest place I ever
saw. Absolutely no vegetation
not even a lichen and
no indication of vegetation
at other times of the year. No
dried remains of plants - an
absolute desert. Mud & shells
in a layer of a sort of conglomer-
ate at an upper level
showing I suppose that the
coast is rising. Left about
noon.

Oct 14

at Pimentel in the morning. Did
not go ashore as we were anchored
so far out. Could see at distance
with glass trees, probably a river
as the coast seemed very barren.
Still cool - had to wear sweater.

Stopped at Elone + ^{cab} Pasmayo
(spelling?) but I did not land.

Oct 15

This morning at ^{Salaverry} ~~Paita~~, saw
a wonderful sight. A constant
stream just skimming the surface of
the water going north just outside
the vessels anchored off shore.
When I crossed the stream was
going & probably had been going
ever before. Is still as strong as
ever (8:30). Stopped at

Salaverry
Chiriholt
Samanco
Casma

Oct 16

Stopped at
Huarmey
Snpl
Buacho

but I did not land

Oct 17

Arrived at Callao in early morning. Got on shore about 10 o'clock. Landed to shore. A man to charge of baggage and landed it at hotel. 2 trunks, 3 bags, valise & carryall. Self in another launch, landed at custom house. Presented my letter to custom official. No examination and no charges. Took train to Lima (Desamparados Station), train every half hour, about half hour transit. Cost 20 cents 1st class. Baggage was weighed cost 3⁹⁵ (paid by government). Cost for baggage to hotel. Total cost 21⁰⁰ soles

2 trunks @ 5⁰⁰ = 10.00

4 bags @ 2⁵⁰ 10.00

self 1.00

plus by tariff

Got much room @ 10⁰⁰ \$ per day. Room well furnished, no bath or toilet.

Meals included. Called at Union Embassy. Poincaré at 3 o'clock. Saw Secretary Pabst. Called on Union Consul, Gurgant. He went with me to see the American Minister or chief of Public Instruction. Bought maps of Peru and plan of Lima, each 2 soles. Went to Police head quarters to get my passport which had been taken from me on the ship. Mr. Croone, (Publ. Instr.) took my letter to Mr. Valero Vivanco for delivery. (Albert's friend's brother)

Oct 18

Went to bank, deposited the my draft for 115⁰⁰. Drew out 15³⁰⁰ in soles 376.38 with the intention of getting a letter of credit on my return from the Secrecy for 5000⁰⁰ (5⁰⁰ premium). The bank would not change my 200 soles nor would a money changer. A silver money changer gave me 80 soles. Called at the Ponce's office. These people met me at the bank. Called on Dr. Croone. He went with me to get a letter from the Correo de Paris Copper Co to stop at

the company's hotel in Cuzco de Potos.
Dr. Gieseck (of Cron's office)
got me a copy of *Peru's
Flora of Cuzco* (Part 1, second
part now being published).
Dr. Gieseck called on me at
hotel. When I return he will
go with me to Univ. Potos &
see collections. Called on
American Corporation & got
letter w/ Mr R. C. Philpott Supr
Cuzco de Potos Corporation.

Supl. de la Colonia del Potos
at La Merced (Chanchamayo).
I may call there & I have time.
Dr. Gieseck called on Dr.
Weberbauer but he was not in.
Arranged to have auto call
for me in morning & take
lunch & 2 pes hand baggage
- self & man - 5 soles.

Left hotel at 6 am. Had to pay
another man 1½ soles to take
lunch to baggage room, & small
piece (2) to train. Arrived at
Oroya at 5:30. At 3⁰⁰ we
went over the divide by passing
through a tunnel (3857 ft long).
The highest point 51568 ft
at Galera, east end of tunnel,
172 Km from Callao. The
passage ascends to nearly 16000
ft in about 100 miles and follows.
There is a gradual ascent across
the coastal plain (from 511 ft
19 Km from Callao) and then
up a valley to summit. There are
65 tunnels 10 of them more
than 500 ft. There are 21
switch-backs or zig-zags on
the road including the bridge at
Chanchamayo and 61 bridges. Alto-
gether it is a remarkable mountain
road with gravel scenery. The
summit ridge runs 1 to 2000 ft
across the peaks being now capped

and 17-18000 ft. There appear
to be no very high peaks in
the vicinity. The main ridge is higher
than in Ecuador but the individual
peaks not so high. The
cucutal plain and the western
slope of the mountains are barren &
steep in the irrigated valleys. As
one approaches the summit reg-
ulation of xerophytic nature appears.
There are many cactuses (not many
species). Toward the summit grasses
appear. At Salera the grass flora
was abundant, but this is
on the east slope. The next slope
to Obaya has much more veg-
etation but on this is only the
beginning of the wet season the
grasses are dry. At Salera it
looked in good condition because
of the high altitude. Vegetation
appeared to go up to as much as
17000 feet. There was more
in places at 15000 ft but not
permanent. Through the country
of the Cerro de Pasco Copper Co

I am stopping at the Company
hotel and am very comfortable.
Have American cooking & an
electric stove in room.

I was told that McBride
was here about 2 weeks
ago on his way home.

Oct 20
Called on Mr. Collier
in charge of the Smelting
Plant at Obaya. He was
very nice. Had Mr. Brown
show me over the works.
Copper (with silver) is
smelted. The ore comes from
the Cerro de Pasco mines.
The crude copper in ingots
is shipped to New York for
refining.

Mr. Collier made arrange-
ments for me to go to Tarma
2 weeks. The auto bus
about 1⁰⁰. Arrived at Tarma
at 3⁰⁰. Took another auto bus
for La Merced
started about 3⁰⁰

The road is through a precipitous valley on canyon cut out of the side of the slope - a good road with even grade and few bumps. It is only wide enough for one auto but autos can not pass. About a foot on each side of tracks.

Autos go up one day and down the next. It was the spookiest ride I ever took. The driver came down at 25-30 or even 35 miles an hour.

There is scarcely 10 feet straight road. Taking these curves at this rate was hair-raising - cliff on one side - precipice on the other. So long as the driver has control of the car every day & all night but -!

We arrived at La Merced about 11⁰⁰ pm. Most of the distance was in the rain and after dark. One of the passengers - a man - suddenly - about 5⁰⁰ - became greatly excited. He developed that he had just discovered the loss from his pocket of a package containing 80 pounds (= 800 soles or about \$20 dollars). We turned and ran up hill trying to see if the package could be found along side the road. Several people were met or passed, usually driving loaded mules. In each case he compelled them to submit to search but all in vain. No package was found. After dark and in the rain we finally turned forward again. It took us an hour to go down to the place we turned back, so we lost about 3 hours.

Spaid ~~only~~ night at La
Alt. 21

Mixed and got a mule
to take me to Colonia Perene.
A boy came about to show
me the way and to bring the
mule back. Left at 8
around at 1⁰⁰. Collected
passer on the way. Made 5 sols
buy 5 sols. I had a letter from
the Governor of the main office
on Lima which I presented
and men taken in as a guest
one of the employees was a
Scottish man & interpreted.

The Perene Colony is a
hacienda for growing coffee
altitude (at office) 590 miles
nearly 2000 feet. They have
1,600,000 coffee trees.

They grow guinea grass which
they call *Paina*. They also
have potatoes of a species
unknown which appears
to be the same as grown by
the Cleveland at Teresita

^{called weedy maizillo}
Cecander. The ~~roots~~ were
taken from wild plants in
the vicinity. I saw also the wild
plants and have specimens.
Not in flower at this season.
Collected in the vicinity.

Alt 22
Went horse back to an outlying
station returning at 1⁰⁰ also
collected in the afternoon.
Alt 23

Collected in evening the river
in the forenoon. I had ordered
a horse to be brought from
the Mireel for the return. The
horse arrived about 10⁰⁰.
Returned to La Mireel
in the afternoon arriving at
4⁰⁰. Collected a little
in the vicinity.

I got at Perene about
50 species. Mostly common
tropical species of lowlands.
The interesting species were
Olyra a Brazilian species.

with several distinct species
the 4-5 in long spikes pinkish at
end only. Round black.

Crucian *inhibendia* - apparently
same as *hamarica* sp.
around miller a small
species growing on rocks.

Leimant, the rarest
species growing on rocks

Aporosa (the species also
rarely mentioned which
is called locally *maicilla*
Paspalum, 2 or 3 species
Syntherisma 4 or 2 species in
a sandy field

Panicum an annual in
sandy soil of the *P. philadelph.*
group

At La Morced I found
growing in meadows a plant
2 sp. of *Eragrostis* that I
don't know, found *Crucian*
inhibendia again. I don't
at Perene there is another
Crucian which may be *C.*
inhibendia.

Tamayo is about 12000 to the
base La Morced about 2000 to the
fall is 10000 ft. Perene is on
the east slope of the mountain
and may be considered in the
upper part of the Umayo Valley.
The forested part of the mountain
is called Montanes, the
high unforested part the
Sierra.

In getting to Perene one
has to cross a river which
flows by the office. Formerly
there was a bridge but
it has been washed away.
Now one must go up the river
about 1 1/2 to 2 miles to a bridge &
back on the other side.

There is a "huaca" (cable bridge)
near the office for transporting
people and small articles.
The platform is supported on
2 cables and drawn over by
a small cable & windlass.

The manager is Mr Valle-Riestra
He has promised to collect
some garden plants & send them

to us for naming. They are both intelligent people.

Oct. 24

Left La Merced about 8⁰⁰ am. For awhile the road goes through village and cultivated valley without much ascent. In one of the fields I found a species of *Chaetochloa* with retrorse bristles - may be *C. scandens*. Then the road began to ascend through the narrow steep valley described before. The ride seemed less dangerous in the daylight. Furthermore I found the speedometer read in kilometers instead of miles. (1 km = .6 mile). We went up at 20-25 km per hour. Whenever the auto stopped for water etc. I went on ahead and made a pretty good collection in this way. Arrived at Pampa at 4⁰⁰ and had a day

there one night. I find there is a strike on the Central Railroad. After arrival I went immediately out to collect. Found a hill that was very favorable. It was a dry hill with cactus and would have plenty of grass in the rainy season. There was a small irrigation ditch part way up. The seepage from this gave sufficient moisture to support several species of grass in flower. The cacti were bad. A small pool with little separable long-spined joints was all the time getting into my shoes hands etc.

Interesting plants.

Aplous meun apparently. By cliffs found a few in flower in a good place (2153)

Erinaceum a species I have not seen. Abundant. (2160)

Stipa (monocot?) (2161) and *hurdella* (2162) were abundant on hills

Multituberculata with slender people
possibly abundant on hills. (2165)
Bouteloua, a prostrate annual (2165)
Lycium? (2169) from the same place
in S.A. may be Multituberculata
Eragrostis (2162) with black
panicles - narrow, nearly smooth siliques
is common, I saw in Ecuador
abundant.

Oct. 25

Came up to Croya in
the forenoon. There is a strike
on the Central of Peru (Lima to
Croya and Huancayo) and no
trains are running here - no
flow of passengers. Took the
auto from 30 soles to take me.
In the afternoon I went out collecting.
It rained very dry around here
and I didn't expect to get
much. I was surprised to
find several nice ones
along the river bottom
which were very moist.

we got about 15 species
new additional to what I
had got before. 2 Poas, 2

Zosteris, hantles, Stipagrostis.
Mr. Colley (Colley San. Manager here)
returns tonight and I will see
him in the morning about
going to a ranch above here.
Brennan of the strike I don't
know when I can get back
to Lima. If it turns out
shipped before I come up here
I might have had to omit
this trip altogether. The Corro
de Pasco is not affected
by the strike so I can go to
Cdr P. I have seen several
herds of llamas.

Oct 26.

This morning I went to Mr. Colley's
office. He will arrange for my
trip to the ranch. In the
afternoon I called again.
I am to go tomorrow on the 4:00
o'clock train to Junin. He has
telegraphed and a horse will

meet me. I can take only
a small amount of baggage.
In the forenoon I walked
along the track towards Huancayo
for 3 km but saw no grasses -
too dry. I have been getting my
plants dry by drying the papers
of the electric stove in my room.
All the rooms at the hotel & offices
are heated by electric stoves.
I am separating my baggage.
I will take everything to Cerro
de Pasco, but will leave it
at Junin until I return from
the ranch. I will take my
large camera.

Oct 27

Separated my things putting
in my suitcase trunk what I
wanted for Cerro de Pasco
in one of the white sacks what
I needed at the ranch. A few
things I put in my valise and
two bundles of plants in the

carrying all, leaving the two (valise
& c- all) at the hotel. I took also
my large camera and my
light press with all the paper
, and light. I was using more
paper than I calculated, so
I went through the bundles already
collected and cut the papers
in two. So doubling the supply.
The train was due to leave at
11⁰⁰. Carriers came for my trunk
& bag (I carrying the camera). I was
told to pay them 80 cs. (50 + 30) & they
carried them to the station. At home
the man wanted 2 soles for
taking trunk & 2 hand pieces
to baggage room & train.

Mr. Rizo-Patron (U.) gave me
a letter to Mr. McKenzie, manager
of the ranch (Atoesaico), one to
his brother ^(C. Rizo-Patagon) at the ranch, and
one to the station agent at
Junin. He also introduced me
to Mr. Gardner, the conductor

on the train. The train was
late and started about 1⁰⁰.
Good 1st class coach with Hutchinson
Light meals served. I took
Copper & Warr (20 + 40) 60 cr. = 24 cents.
A narrow table is put in front of one
at the regular seats - like a narrower
card table. We kept going up over
sawmills - some grassy plains or
hills. Arrived a fine place
3⁰⁰. Peculiar place because
all the lots are divided by stone
walls & kept high - no trees or
shrubs and the little thatched
stone houses scattered around
in these fenced lots. The man
from the ranch was there
with a horse. I left the
baggage and covered the rest.
I took the pieces & my parcels
making my dinner & tea
here. The man took the camera
& the few things in the sack were
divided between the two men.

I put over the horse.
It is about 2 hours ride (4 leagues)
^{South} (west) to the ranch house.
In a short time after
leaving a storm came up
first rain and then sleet
I put on my ponchos (I had my
gloves on too). The sleet was as
big as buck shot. The storm
passed over and there was
thunder. We arrived about
dark. Mr McKee (Scotch), Mr
MacLeod (Scots) and Mr C. Pige-
otson, were there. We had supper
at 7⁰⁰ and talked till 9⁰⁰.
The Scotch is nearly as hard
for me to understand as is the
Spanish. I have a nice clean
room. It is cold. There was
fire in a stove in the office where
we sat. They are to have electric
light in the rooms but the con-
nections are not yet made.
They piled on the cover on my

enough to maintain myself.
Then they put a hot water
bottle at the foot. In about
an hour I got up & put on
my wool underwear (I had had
on my pajamas). At 3⁰⁰ I got
up & put on my wool shirt
I was now warm. Being
suddenly moving people sleep
late

Oct 28

I got up at 8⁰⁰ - no one else
(but servants) up. The servant
gave me breakfast coffee
& oat meal. The last was the
best I have had since leaving
home - rich & creamy!

In the forenoon I took some
photos of the ranch houses &
Mr McRae showed me
through the buildings.

The ranch contains 11,000 acres
and is devoted primarily to sheep raising
for wool. They keep 30-35,000 sheep

about 11,000 cattle & some horses. The sheep
graze the grass around & there is plenty
of running water. There is an electric power
house supplied by water power. The buildings
are kept from this and the wool press
is run - also a small circular saw.

They dip the sheep & vaccinate the cattle
for black leg. The fencing equipment
and outfit is up to date and in good
condition. The grazing is good
they allow 2 sheep to 3 acres and con-
sider 1 head cattle = 7 sheep. They produce
about 60 tons of wool per year. As a
by-product there are the skins of all dead
sheep and the skins of sheep are sold
for nothing. The sheep suffer from
foxes & coyotes. These are shot and
a bounty allowed. The labor is Indian
& in the form mostly of tenant farmers.
The quality of the sheep is kept up by
importing 50 rams from Argentina
every 3rd year. As there are no
trees on the place timber must be
purchased. All the wool is bought

from the railroad being the cheapest
source. There are of Oregon fir and
the defective wood is removed leaving
a good inside. Poles are brought up
from Tacoma to be used for secondary
posts. The principal fuel is peat made
from turf. They make their own lime
from the abundant native limestone.
The fuel for the kilns is sheep manure.
From the lime they make cement
for stone walls & buildings. The shearing
is done by hand as machine shears
leave the sheep too close shorn for this
cold climate.

In the afternoon I collected in the
vicinity of the ranch house getting about
15 species. It is the wrong season
(the end of the dry season & the
grasses are mostly not in flower).
By searching I came after fine
flowering shoots as strays.
There is very little other vegetation
other than grass. One the hills
the dominant grass is a bunch grass

(Festuca) with stiff cylindrical blades
1-2 ft long. I got specimens of
a leguminous plant that they
said gave symptoms similar to
those of our loco-weed. It is an
allied plant. Grows on the
bottom land in small bunches -
blue flowers. Terrible only
when the grass is lacking.

Oct 24-

I accompanied Mr McKee
and the others to a sheep
camp a few miles to the
west where a flock of
sheep were run with a
coward. The bunch was camped
and the kids cut off, it was
mangled and the males castrated.
(While this was going on)
I took some pictures and
collected a few things.
The party then moved
on to another camp and
the process repeated.

I took more pictures & collected a few minutes.

I got pictures of a gregarious very much callus with glaucous flowers. The plants form colonies several feet in diameter and a foot or two high very white - mostly conspicuous at some distance.

It is very springy as I can assure. I stumbled and felt striking me and a great many more sticking me badly.

This only plant of some special interest was a minute tiny ferny little bunches or patches, more or less gregarious in some soil. The blades are less than an inch long and the petioles bearing a single spatulate segment, like the leaves.

The single flower white-pinkish I have seen this in the mountains but I do not

remember the name

In the evening we (McLeod, Ryo-Paterson and myself) played high casino, the first time I have ever played this. Result 2 to 2. (Ryo-Paterson being my partner. We had 4 matches today. I ate a hearty breakfast, oatmeal and cream, quinine chips, but 2 cups coffee. Then we had lunch in the hall at 12th. Dinner at the house at about 5th and another dinner at 8th.

Oct. 30

Took picture of tiny pile of stone but & the ship dipping plane. Then we started for Lima. Mr McLeod accompanied me. We passed through a sheet storm. I took a picture of some llamas at the station. The train left about 2⁰⁰ and I arrived at Cerro de Pasco about 5⁰⁰. In the morning we

Mr. Kempier since moved to
Mr. Colley that I was going to
Mr. C. Litzgapher & Mr. Philpott
Super. here. So there was a
room for me at the Conspire
Hotel, I could not get my baggage
traveller till the next morning.

I had put all my stuff from the
ranch into the sack & sent it
along with the trunk by baggage.

So I had not so much as
a comb last night. I went
down to the Club in the evening
and read. They have a good
assortment of magazines.

The rooms are heated with
hot water.

Cerro de Potosi is a cold
bleak place - 14000 ft. alt.
the the road we passed
over a level plain for
many miles, several miles
wide, about 3000 ft.

Oct 31.

Called on Mr. Philpott
& presented my letter from the
Home Office & my Sept. 1st letter.
My baggage was in my room when
I returned. So I went out
collecting. I did not get far
before noon. After noon,
took 5 pictures (5x7) and
fixed up my plants & also those
I got at the ranch. By that
time it looked so much
like home that I did not
go out again. Slept still on.

When I went out this
morning I had on my thick cotton
underwear, my heavy wool under-
shirt, my flannel shirt, my wool sweater,
my grey wool shirt and my
thick vest. This morning I put
on my heavy suit with vest
and took off the flannel vest.

I am not troubled with
sore throat (moulted sore throat)
Mr. Philpott says I am 8 or 10
years from it when they find

come here but 20% of them
get over it in a few days.
I have shortness of breath
when I exert myself. I also
notice a slight nervousness
as if I had taken strong coffee
and I find myself even at
rest taking a long breath
at intervals as if I were not
getting over enough.

There are snow covered
mountains in the distance
to the west. These run up to
16-17000 ft.

An interesting game here is
the one described from the
cave (near Muckley Lake). It is
very abundant here covering
entire hills forming little
hills or patches. If I sit
down on one or kneel on one
the little plants stick into the cloth.

I have not written home since
I left Lima. The same is true.

write until there is some prospect
of getting a letter through.
Nov. 1.

Started out collecting
at 7³⁰. Went south along the
main road followed by the
Ry (at 14³⁰). Found a few things.
By constant inspection I was
able to get a few more of the
species. I had seen only 6 for
some time much use. In the
afternoon I took notes and
tried to dry my papers but with
little success as it rained a
drenched most of the time. I now
have the papers spread around in
my room, hoping they will
partially dry. I have made ar-
rangements with Mr. Phillips
for a mule & pack to go to
La Quimara, 2 hours ride &
3000 ft. lower.

There is a train from Lima
today under guard of soldiers.
Quimara

It is said to have reached
Casapalca tonight (just west
of the divide). It is hoped that
train service will soon be es-
tablished.

Nov 2

Started at 8⁰⁰ for La Quinchua
on mule with guide on horse.

I carried my small camera.
He took my press. It was raining,
& continued to rain at intervals
all day. Soon (about 3 km) after
leaving the hotel the road drops
down through a valley, narrow
& deep, to La Quinchua, about 10
km from Corro de Pasa. The road
is good. As soon as the road
had dropped to the rocky cliffs
I commenced collecting & got
several things new but not
of special interest. There are
so many species of *Calamagrostis*
Holcus etc that I cannot tell
what one of interest will study

them. It seems, evidence that
the number of species in this group
is large and one cannot say
a priori that the new species
of *Calamagrostis* & *Holcus* are too many.
We passed some interesting
runs of ore mills operated
by the Spaniards. There were
circular mills of stone 5 ft in
high & 30 ft across, round with
stone. While functioning a heavy
stone roller & kept across & a foot
rod was rolled round a central
shaft, pulled by animals. The
ore was thrown on the floor
& crushed. I took a picture
of one group containing one of
the millstones close together.
The old rollers are numerous,
weathered & thin.

I took lunch with Mr Wright
in charge of a gold mine at La
Quinchua, to whom I had a letter.
We arrived at 1³⁰ & left at 3³⁰

Thomson collected above
the river from the town.

The yellow bag took 3 hours.
It rained (drizzled) most of the
time and I was thoroughly
chilled by the time I got back,
though I had on many cotton
underwear, heavy wool underwear,
sweaters, wool socks, wool shirt,
vest, wool-lined leather coat, and
panda - 7 layers!

Nov. 3.

I have not gone out today
driving my whole time to
doing my. I have on board all
my collections but at the ranch
working day, & more plants than
before. The sun has shone
intermittently for a few minutes
at a time but with occasional
light showers so that I
have been unable to get my
papers thoroughly dry. The room
is heated by steam but the heat

is not much more from 8 pm to 11 pm
& only a little then as it only
keeps a little warmer in day.
The room is comfortable. Last
night I found the papers all over
the room & got them partially
dry but I have not succeeded
in getting them hot. The smells
are now over the steam pipe.
I have no corrugated paper
with me except some &
a little at home. The weather
is so cool that there is
little danger of mould.

Nov. 4

Dried papers in the forenoon
& loaded on in the afternoon.
In the evening made a check
of papers & found nearly all the
plants dry. Took 3 pictures of
this room - one of the shelves
of (mould) on the wall back of the
table, showing fairly well. The
mould is large & thick and is
a blackish

The culture usually merging
into one another soon.

Still no chance to return to Lima.
A train sent one under guard
of soldiers was derailed on return.
I don't want to risk riding
until train are safe.

I got the papers ~~was~~ today.
My lungs, evidently don't get
all the air they need when

I am sitting quietly. I will
suddenly feel a lack of air &
will take a long breath.

At night I sometimes wake
up gasping for breath. Espe-
cially in the morning when I
awake I will suddenly start as
I gasp for more air. The
barometric pressure is only
about 17 instead of about 30
at sea level. So the lungs
are getting only about half
what they are accustomed to.

Nov. 5

Dried plants, all dry now. Packed
to go to Soyllarisungta.

Nov. 6

Started at 7³⁰ taking large camera,
press, pencils, umbrella, black ~~and~~
batteries, comb, tooth brush,
mittens, collecting clothes worn.

Arrived at 10³⁰. Mr. Philpott had
telephoned and a young man
was at the train to meet me.

Went at once to call on the
Medical Messenger. I was
assigned to good quarters -
a cottage with kitchen (electric
stove) sitting room (coal grate), bath
room, stable. In the afternoon
Mr. Tweed & I went back
down a trail towards the
river through a steep valley.

We got a goodly number of geese.
In the evening he took me to the
Club & showed me how to
play English billiards.

Nov. 7

In Tuesday morn went with me
back to nearly point
where an incline cable car
goes down 5000 feet to a coal
mine. Part way down we got
off and collected then went
to the bottom for more
collecting. The valley is more
moist and the passes were
in fine cattle condition - it
was satisfactory collecting
area. I have been in Peru.
We returned for lunch and
I took the train for Cuzco at
noon. After my return to
Cuzco I put my plants in
press and took the notes.

Nov 8

During the day I worked
at drying the plants collected
yesterday & the day before. The
rest of the morn I rested & took
a 2-hour walk this fore-

noon through the town &
beyond viewing by the extensive
suburbs. I had a good view
of the snow range to the west.
I have decided to return to
Cuzco tomorrow by the
noon train. I may be able
to take a train for Lima
on Saturday.

Nov 9

Packed trunk & bag and did
other things preparatory to leaving.
Left at 12³⁰. Bell 8% sales
(1% for trip to La Quilicura). Thru
at hotel 2 sales each for lodging
& meals. Arrived at Cuzco at
5⁰⁰. Got baggage immediately
& had it covered to hotel.
Heard that train leaves for Lima
at 10⁰⁰ tomorrow. Got suit case
that was left here and re-
packed my things. Took steamer
trunk & sack (mostly plants) for
heavy baggage; suit case & carry all
for hand baggage.

Nov. 10

Had a mixed time getting my baggage to the station. We told the man left at 10¹⁵. I told him it was to go at 9⁰⁰ but probably would not leave till 9³⁰.

There was a large crowd at the station & much confusion. Finally I got my ticket and could send my baggage. I put the trunk baggage in the reserved car & got off the other at the room for "Equipage". I saw it put in a freight car along with a lot of other stuff that was being sent off.

The train did not actually go till 10¹⁰. Only passenger cars were in the train - 5 I think.

We arrived at Lima about 7⁰⁰ - without accident. The scenery along the road is

wonderful - the most wonderful, I think, that I have seen anywhere. As a boy wanted 2 sales to carry my two parcels to an auto. I carried them myself. There was a grand rush for autos. A boy got me into one and the driver said 2 sales (with heavy gold - 2 blocks each) I said I would pay the correct amount whatever that was and asked him how much was the tariff he said 50 cents but did not want to take one passenger for that. He would go for 1 sol but I got out and walked on my baggage was not very heavy. Got to hotel & took cheap room - 10 sols, laundry (8⁰⁰).

Nov. 11. Sunday

I slept late as I was not
troubled by gasping for breath.
Saw the clerk my receipt for
baggage to be sent up from
the Station. I then, after
dinner, took a walk.
The sky was clear & air
cool - very delightful.
Returned about 11:00.
Clerk says the baggage has
not arrived but will
(probably) be there on
Tuesday & train (train
runs up Monday & down
Tuesday). There is a pretty
letter of Josh! I expect to
go on a steam sailing
from Callao Wednesday
afternoon. I plan to telegraph
Mr. Kelley to see if he can
help about the baggage.
Later - I went down to the
Station towards evening and

found that a freight car
had come in this afternoon
from Oroya with baggage. Prob-
ably my baggage is in it. It can
not be obtained till "mañana"
however.

Nov. 12

Busy day. 8³⁰ went to Banco to
to see about ticket on steamer
but could not complete
arrangements till I get my bag-
gage. Steamer goes at 6⁰⁰ p.m. With
9⁰⁰ went to Correo de Pasajeros
to see the woman who had
given me a letter so that I
could use the Co's hotels
at C. de P. & Oroya. 9³⁰ went
to bank to see about my letter
of credit - got it tomorrow.
10⁰⁰ went to Mr. Eusebio to
see about sending mail in
Eusebio pouch & about Bolivian
Customs. I see him tomorrow
about the latter as he (the sec-

relating Embarras not yet
back from (Squitos) is to see the
Baltimore Minister. 10³⁰ Saw
Mr Pombo to whom I had a
letter from Mr Queen of Toronto
inquiry of the oil interests of Peru.
I lunch with him tomorrow.
He will give me a letter to a
man in La Paz. 11⁰⁰ Went
to German School to see
Rehnbauer. He meets me
at 1⁰⁰. 11³⁰ Returned to hotel
& found the baggage had
not come - rushed down to
Station to see about it myself
& got same result. Rushed
up to see Rehbauer but all
had gone - lay off 11³⁰ - 1³⁰
Saw Mr. Rehnbauer came
at 1⁰⁰ I took him over
to C de P Co. Saw Crist
Ami my map (which not there)
and he took my receipt for
baggage & said he would

look into the matter. Although
time had been out and he
might not be able to reach
La Paz, I wanted to send
one where the stuff was.
Then went with Rehnbauer
in a bus to country & got
about 12 species of grasses.
Returned a little after 4⁰⁰ & found
up & went to see Mr Crist.
He said my baggage was
at the station & had been
there in the morning! If
the hotel man can not
get it he will send a
man tomorrow to pick it up.
Then at 5⁰⁰ went to Chamber
of Deputies to see Sr Vivanco
the brother of Alberto's friend.
He was very nice to me and
showed me the Chamber of
Deputies - in session and
sent a man to take me
to the Senate also in session.

I met the President of the
Senate and several other
officials. Dined.

Nov 13

Alrosa Lake (8³⁰). About 9³⁰
in church at the office
about my bag of ^{the} which
talking in corner the trunk
and back - a right for
sore eyes. Immediately
I went to Grace St. and
purchased my steamer
ticket (30⁰⁰) presented
one of the Bank managers
check (20⁰⁰) for some
Dollars & added 10⁰⁰ Amer.
Went to bank & put my
order of credit. Went
to All American Cable Office
& sent cable "Cable, U.S. -
Cable, Washington D.C. Delayed
my railroad ticket. Pro-
viding railroad fare
with "separate rate"

9¹⁵ Sales. This will serve
to notify Mr. Chase &
other people, as my letters
will not get there for
2-3 weeks. Went to Embassy
The said Mr. Munroe &
Botwin (Cottrell) moved in
on the same boat to Mollan-
do & I could see him about
Cassidy letter. Went to Pombo
& he took me & another gentle-
man to lunch - a fine one too.
Bought cloth for wrapping
plants. Took some going in
sent in Embassy mail. Returned
to hotel and put up 2 pkgs
guns and powder boxes
in case will finish in morning.

Nov. 14

Visited Mr. Crook & Mr. Gieseke
Packed my trunk & bags &
put up a pkg of films
& 4 pkgs - plants wrapped
in cloth which I took

To Amer. Gen. Cons. to be
sent in their papers.
Arranged for baggage to be
sent to boat. Dr. Weber-
bauer came a little after
11⁰⁰ as he had promised.
We visited & I took him to
lunch at the hotel. After this
we went to the Botanical Garden.
About 3⁰⁰ I took an electric
car (with my suit case) for
Callao and went aboard
the steamer. The Santa Ana
(once known) is a fine steamer
much better than the Peruvian
or Cuban line. I thought
I would visit the
Museum to Palma but on
returning to Panama from
Callao for an operation
an unexplained error, the
ship which had just come
down on the Santa Ana
was not there.

Dr. Weberbauer is interesting
in the botany I should
learn he had to earn
money - probably (I infer
from what he said) his income
from Germany is cut off.
He understands plants well.
He has promised to sell
me a set of duplicates of
his papers. He is to get once
a set of all his plants for
the Field Museum & he will
get a set of grasses for me
at the same time. I also
asked him to collect as
many more as he could
& we would buy them.
I have asked Mr. Chase
to send him a set of
my complete publications
& to get him on the mailing
list for C. R. H.
Nov. 15

At San. Life last night at 6⁰⁰

A little sun with I didn't
feel like doing much.
My room mate is a mining
engineer - English - going to
Bolivia.

Nov. 16

Arrived about 10³⁰ Open
roadstead. I went ashore
aboard & went ashore
about 2³⁰. Most of the
passenger caught the 1⁰⁰
train for Winnipeg. But
I intended to stay till Sunday
(no train Saturday) &
Dr. Williamson said he
thought I would give the
hills from the time I
came off & it would
pay me to collect. I would
see from the road that
the hills were green &
worthwhile to stay. I am
at the Hotel Fenimore
& have a bed room & sitting

room. As soon as my
bags came (about 8¹⁵)
I got my gun and went out
S.E. of town. All along
the coast the low hills are
sandy over rocks and are
absolutely dry & barren.
The green seen from the boat
commencing in the higher hills
probably 2 miles back. But
as I went up draws I
began to find things.
All were small animals
including 2 grasshoppers - hares &
squirrel (peromyscus?). Farther
up more some peromyscus in
climbing a cedar. I found
a tufted peromyscus steps here
and a small leucodon
1-3 inches high that I do not
recognize. Abundant in
places but the largest I saw
was about 3 inches tall. I will
look for this again tomorrow

to see if it runs longer.
There has suddenly been
enough rain lately to
start the annuals. Nearly all
are now producing seed &
will soon pass off the stage.
I am planning to go into the
hills tomorrow.

Nov. 17

Started for the hills at 8¹⁵
accompanied by a young
man to carry my press &
milk (including 2 bottles of
soda). We returned at 5⁰⁰.

We made for the green hills
directly back of the city and 3-4
miles away. After reaching
the summit we could be
seen that green hills ex-
tended further upland the
interior and they seemed to
be less green than those
near the river and by
the south and north. I looked

every way. Also the soil on the
summit was moist as if from
recent precipitation. Some
combination of conditions
makes these hills more
moist than others in the
vicinity. The vegetation
seemed to be up to maximum
condition - everything in full
bloom. Mostly annuals of
short life time & perennial
composites with flowers like
a composite was dominant
over much of the interior
area. One other dominant
plant was a yellow-
flowered *Senecio* with
striking leaves (one annual)
in the petals (yellow) were
replaced, groups of flowers
were enclosed in them as just
and later curved down
to the styles. There were
few grasses. The *Euphorbia* before

perennial

mentioned is common. Another
sp of *Euphorbia* appeared
(2-flowered) the same slender
and more or less spiculate.
It was common, in fact the
only common one, on the
interior hills is an annual
Kallwin.

I collected a few spec-
imens of the flowering plants
for Robinson & Britton. As the
distance is so far only a
short time the plants are
not easily obtained and
may prove of interest.

I had with me a light press
and a limited quantity of paper
I could get only recent spec-
imens. I obtained 77 numbers.

No trees were seen & only
about 3 species of shrub - these
improvement to on the north
slopes. One (linden?) was in
flower. Two species of *Cacti*

last census

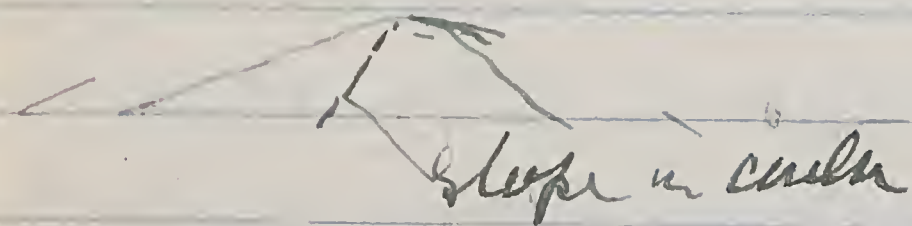
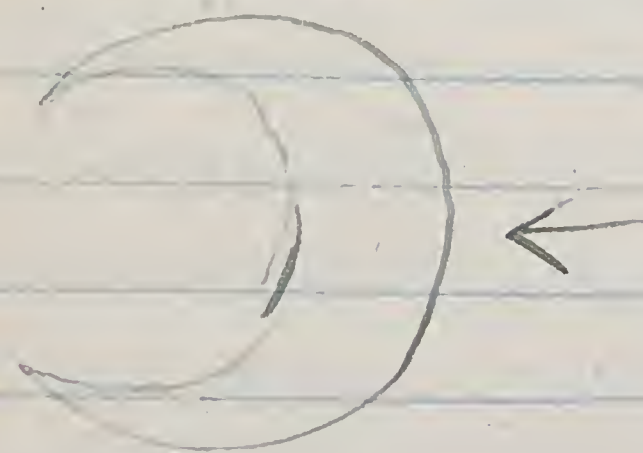
were seen. As *Columbus* the other
crowned & *Quercus* in *Quercus*. There
were no streams or water of
any kind. Sheep & cattle were
being herded over the hills to
take advantage of the veg-
etation. I was told there
then obtained water at a
point to the north.

Nov 18

Spent the forenoon in packing
Also took several 5x7 photos
at 1st stop in train
for Anigripa. Paid 18 gals
for baggage from station
to Curator's house in lunch
(5 pieces & self 1 gal each) &
to hotel (dinner) and hotel
to station (dinner). Express baggage
(32 lbs for) to Anigripa,
\$10. The hotel + provisions
was very satisfactory. I had
a nice large room @ 5⁰⁰ - 5
per day. The baggage was

was very interesting. From foot-
 hinged went for several miles
 & then inland climbing rapidly.
 From the slope with dense
 vegetation growing a dense
 green color, then the green hills
 like those back of Holland
 with the yellow splashes of
 the corn field (sorghum-like)
 some places pink with one annual
 malva. The vegetation very
 abundant. After passing
 the hills in some places a
 plateau - desert - covered
 of vegetation. There were
 many miles of this a good-
 not ancient but appearing
 newly laid. Mostly brown
 sand. Some capped peaks
 were seen in the distance.
 I saw thousands of the curious
 crescent-shaped some of them
 of which I have read. There
 were seen in the latter part of

the desert plain. They are
 said to move across the
 plain - in the direction of
 the wind - north or N.E. all
 over the same shape & pointing
 in the same direction & moving
 about the same size.



They were 10-15 ft high &
 probably 100 ft across. The
 wind was not blowing
 today. Very curious!
 At the station people
 appeared for salt. Several
 baskets with ropes etc.



The climb up the green hills
 was very tedious, full of curves.
 After passing the plain we

followed up the valley or cañon
of a river down to the bridge,
many curves. A very barren
desolate view across the hills
at one place on the plain
I noticed scattered stones
with a growth that I suspect
was Indian but finally much
over it in a sp. of Tillandsia.
Saw some very good also
holding little mounds of
sand.

Returning to the dam. The plain
itself was of brown dirt, or
sand which by morning dunes
were mostly white - this set
of the dam, conspicuously.

However at bridge I got
into an auto & my boots had
nearly completely all mud room
were taken and I went to
the Hotel Costa-Amor - 6th
floor. I am going out to
the observatory tomorrow
morning.

at 8³⁰ Nov 19 went up to observatory in
auto. Dr Bailey in charge. Took
some photos (5x7) there are
3 mts near by Chachani 20000 ft
at left, Misti, 19150 in center, Pichu-
Pichu at right, 17800 ft, all snow-
capped. Stayed to lunch & took
a short walk with Dr. afterwards
on streamer we crossed the
observatory. Distance about 4⁰⁰
a foot. Climbed up the Vivanco
bushes to Alberto's friend. He went
with me to see the Blaville
manager of the Southern Railway
to whom I had a letter from
Mr. Giesecke in Lima. We arranged
to take a trip to Misti on Wed-
nesday. Mr. Vivanco will make
all the arrangements, calling for
me at the hotel at 8⁰⁰. We go
by horse to the upper limit of veg-
etation & return the same
day. Being the dry season I
won't feel too much but
I am taking the risk.
I cannot leave tonight

all Saturday as there are only
2 hours a week, Tues & Sat. I put
out my laundry this morning & then
returned. Well, or I might have
made a break for tomorrow morning.
Viggo is quite a city - 2^d in size
in Peru. The music seems very close
& is a noisy perfect cone has
a crane on top. Alt. of city 7500
Our walk took us along cultivated
fields. I was surprised
at the small number of species of
blue grass (*P. polyantha*) & common
brown midland is a common weed.
P. interrupta (interrupta) common along
ditches. *Sporobolus* *distichus*
(*distichus*) is occasional on the
dikes, as is also *Distichlis* (*spicata*)
that is about all. I am going to
look around some more
Nov 20

Went to see Mr. Blairdell
at the SEMM & returned. He
reported on specimens of *Julia*
for the Ry Co. Inquired about
Tennis - may get a game.

Before going turned dried papers
in the sun - got them hot. Changed
papers & dried again. This after-
noon - oh, went to lunch
at Mrs. Bates - fine meal!
About 3³⁰ took a walk out
into the country to the east of
city. Got some photos.
The valley is irrigated &
grows some mostly alfalfa.
wheat & corn. The trees
are willows & eucalyptus. Around
houses are *Acacia*. Very few
juncos along the ditches.
Panicum *pratiense*

P. (crinitum) - forms long floating
stems in water.

Apostis maritima?

Bromus *maritimus*

Polygala (*interrupta*)

Distichlis (*spicata*)

In the park was *Julia multicaulis*
The wheat is a long-stemmed form
like barley that I have not seen before.
Have got my things ready for
tomorrow morning.

Nov. 21

Mr Delgado Vivanco arrived promptly at 8⁰⁰ - English style as he says - this being the hour set. With him was a friend who acted as interpreter - an Italian born in London. Also a helper who carried my pack & large camera. A horse (mule) for me without saddle - I using my own. Mr D. was dressed in a checked riding costume & wore bag hat. I took also my small camera.

We went to a small village - Chiquata - 11⁰⁰, where we took lunch. He had provided our breakfast - including a good chicken beer & some mineral water for me. We ate at a small native house - friends of the interpreter. They were very hospitable. Provided table & pretty soon on came some soap or tallow, & later a lot of fruit & eggs. Still later a cup of milk

which had over our lunch & did not eat much of it as before. It showed their hospitality. After lunch we returned over the plain to Mista to another small ranching the hotel at 5⁰⁰. I took several pictures - cactuses, distant scenes, etc. The distance is very barren at this season no grasses, some of the shrubs are in flower. I was told that the vegetation prevailed close up the mountain as far as the limit of vegetation. From what I could see this seemed to be true. I could see no green patches and no signs of streams. The whole appearance appears to be largely dead. Mr Delgado did not want to accept my pay but finally since it was government money and not my own consented to let me pay. He said his brother (in my letter from him) had asked him to do whatever he could for me.

Nov. 22
Thought I might have
much to do today and have
been busy all day. Went to the
breakfast through papers & drew
up all papers as usual. Packed
saddle and other things in boxes
and took with me. Then
went to see Mr. Blairdell
and in the room - saw Mr.
Brewer. Found that I had
to have certificate of health
from the police commissioner
before seeing
Blairdell. Went to Dr. Rick-
ards (2 sons). He got inter-
ested in game & wanted me
to see a wonderful game
that he had. I said I was
not. Made appointment for
2nd. Arrived in the morning
just before starting out a
letter from Dr. Rickards
is at the office a station
near the hotel. He wants
me to meet him at the

station below. I knew
that Blairdell had told
the Brewster man & he had
told Brewster. So I went to
see Mr. Brewster the head of the
Brewery. He is an ornate
artist and is subsidizing
Dr. Brewster in collecting.
I told Mr. Brewster that I
should like to get Brewster
to assist me and would
pay his expenses. He said
he would have no ob-
jection and recommended
this to Brew-
ster. I told him I would work
for him during. At 1³⁰
went to bank & got \$100⁰⁰
and my letter of credit (banking
hours 9³⁰-11 and 1⁰⁰-3⁰⁰). Went
to Dr. Rickards & with him is
Mr. Delgado, Virginia, brother
of the one who has the 3 sons.
He has a son at Berkeley

He made me an appointment
for 10⁰⁰ next day. Then went out
to observation to get my camera
(5x7) fixed by the mechanic
there. Had tea. A full day
Nov. 23

After breakfast packed my
trunk. Went to see Mr. J. A.
Delgado V. (Albert's parents' brother)
He is to leave for me tomorrow
morning at 7⁰⁰ to take me to Pinar.
Talked with his father. They
are in grain & sugar business.
At 10⁰⁰ went to the Delgado
Vivarium - the milk - who
took me to his private part
at the edge of the city - fine
place. He is building a
house which he said
would cost \$15,000. But
U. S. R. would cost from
\$75-100,000 - difference mostly
in labor. A man gets 50-60¢
a day & makes 6 1/2 to 5 1/2

compensate me the highest price getting
\$2⁰⁰. Then they get very fine
building stone near by - a light
pinker - like lava which shapes
easily & is worked by weathering
color white & pink. He showed
me his garden with many kinds
of flowers & trees. Agave is
a small species the seeds of which
are red (probably a coating - I did
not see them). This is much
used as a dye. He says the
common wheat grown here -
long - narrow like barley - is
called Barba blanca. Good
land like this is worth much
3000 sols per square of 50 fards.
It has plenty of water. I saw the
pump and I do not know it.
It is a creeping grass like
the Japanese lawn grass. He
said he got a pair of plants
from the study of the Chugui-
branch of the station where I will stay

and see them out and
now it comes an area of
100-200 ft long & 10 ft wide
appears to stand bracing
as it is right inside a road.
Form a close soil like
Bismuth - but the runners over so
the says in the rainy season it
grows 2-3 ft high (-) and
erect stem like - very
some when it is dry (the)
I found flowers and have
a specimen in mosses.
The stems have joints
1 inch long - 1/2 inch; stiff - very
green - breaking. After getting
through we went to see
Dr. Graham. Mr. D. V. gave
me a thin slab of stone
with impression on it like
Moss or Alga. Mr.
Graham says it is not a
plant but the impression
of plants. I found

my letter to Mr. S. & he sends it
on to Breckin. I have copy
of my letter. I offer to pay
his expenses and a salary
for 2 to 4 months (as long as
I am approved to). He is to
sit in the office at the Co.
after dinner (dinner) I bought
my ticket to Chiquibambilla
where is the exp. stop. It is
approx. 100 miles towards
Cusco. On 31st I was bought
on 28th. I had a transfer
Co. here took after the whole
family for me. They came and
put the baggage. Transfer charges
1 busk 60 C. & other (1 lb & 3 sacks)
30 & more. The fellows who
brought me up from by the
thrupt all straight - said
that was the way. Wrote Ramon +
Dunham
Nov 24

Mr Delgado V. came at 4⁰⁰
to the hotel with an auto and

took me to the station. I took
a reserved seat in the chair
car. We would gradually
upward to Cruces Alto the
highest point on the line (14685)
and then descended to a vast
plain on which is juliflor
(14550) where I stay all night.
The train goes on to Puno &
connects with the boat for
La Paz. I go in the morning
to Chuquibambilla on the
way to Cusco. The grass
was gradually increased
until it is very thick but
not in flower at this season.
I saw a herd of alpacas
for the first time. They
were smaller than those
and were covered with
glowing warts. One of the
inhabitants of the highland
is the quichua and speaking
of puna. One kind is
the "yareta" a low polka
plant which looks like crumpled

sponge or it is shepped.
Another kind is the crumpled
stem and roots of some shrub.
Another is the silver plant of a
common shrub 2-3 feet high.
This is put up in square bales
& all kinds are found piled
in quantity at stations waiting
shipment (see photos & specimens).
The sky was overcast &
there were showers in
night in many places - the
rainy season commencing
juliflor is where Huxley
worked on his experiments.
If he stayed here 8 months
I should have thought he
would have died of sun.
It is cold here like Oroya
but I see no fire. Train
Wed & Sunday to Cusco.

Nov. 23
Started for Chuquibambilla
at 8²⁰ had seat in chair car

Was joined by Mr. Storde, the
Director of the Station, whom
I was going to see. Arrived
at destination about 11³⁰
and had lunch there. Am
assigned to a good room and
am very comfortable. Took
down photographs + looked
over the station with Mr. Storde.
The chief work is sheep raising
+ improving the sheep. The
ranch contains 18,000
acres + they have about
15,000 head of sheep. They
also have hogs. They use
native swine + imported
(England) swine. The altitude
is 12,500 and the grazing is sum-
mer to fall at Aloaite Ranch.
They have a fine dipping
apparatus and other modern
equipment.

Bed fine - hot water bottle
in it. Also a fire (of cow dung)
in my room. The sitting room
is comfortable and there

is a fire there but the oil
is to be used at 8³⁰ + 9³⁰ + 10³⁰ + 11³⁰
room.

Nov. 26.

This forenoon took some more
pictures + looked for grasses.
Had good my pen. Tea + fruit
was brought in to me at 6⁰⁰
before I got up - Breakfast about
7³⁰. In the afternoon we went
to one of the farms about 3 km
distant. One of the shepherds
is in charge here + took after
the flock that center here.
The lambing time is on now.
Last night there was a good
rain - over $\frac{1}{2}$ inch. This afternoon
it rained again.

In spare time I have been
reading Col. Storde's report
on his journey from Nairobi
(Kenya) through Abyssinia
to the Red Sea - very interesting -
well illustrated by photographs.

Nov. 27

In the forenoon Mr. Storde + I

went to another of the garrus
about 8 miles away. We
walked over & rode back.
At the same time were visiting
the swiss meadows with a dis-
tinguished collector. All the swiss
are this week just before
lambing. There is a peculiar
noise just over the meadow &
infects the young lambs with
a serious - usually fatal
dysentery. In a month they
are immune. They dose the
lambs also with formalin.
I took a walk up into the
hills but found little. There
were two kinds of small cacti
one a *maximilianii* with red
flowers mostly buried in the
soil. The other a *hemisphaerica*
a good one, characterizing
of many crevices - like radiating
branches - no flowers. I found
a *Poa* in good condition on

rocky cliffs. The branches of the
other plants are reflexed like
our *P. reflexa*. 7 and 2 rock
farms for the year. and then
at the garrus & returned in
rain (& sleet). Saw about
1500 lambs a day or two old.
The mothers were trying to pro-
tect them from the sleet by
standing over them.
They are importing rams from
Europe (Ireland Scotland &
France) to build up the flock.
They consider the short neck
type one of the most nutritious
forms of the *Parnep* the flat
plane is distinguished from
the hills. The grass is common
(type is short on plain & hills
especially the latter. This is not
considered good forage (at least for
sheep). I saw it snipped a good
deal - probably by cattle, horses,
& horses. It is much used for

tratch. After returning to the station we had a game of tennis (doubles). It had not rained here. The ground was good, level and well kept, like was on the station some years since my coming to this valley with erratic winds.

Running at night, 13000 ft was a new thing for me. During the first set I got worried badly but after that I did not seem to mind it. I had been told that I (an old man!) should not attempt running at Quito (9500) but my motto is do & dare!

Mr. Sturdy played & said there would be no difficulty for me if I took it slowly at first. He is elderly & ahen, somewhat robust at the waist line. The bookkeeper & I played Mr. Sturdy & a Peruvian helper

The result happens to be worth recording. We beat them 6-4, 7-5, 6-1, ~~6-7~~ 6-7 (we decided to quit on the odd game). The bookkeeper was the best player of the lot - though Col. Sturdy had a wicked return stroke. At odd times I am reading "Knock-Peru".

Nov 28

In the forenoon packed my things. Left with Col. Sturdy & 20 mules and 9 quivers mine paper. Yesterday the boy that brought my camera in some way broke my ground glass. Col. Sturdy gave me a ground glass 6x8 and had his carpenter cut it down to place it in for me. An old Indian woman came by appointment and I took a photo. She is said to be 107 years old. She had a pet woman with her & took a picture of it. Hope for later

at noon and arrived
at 7⁰⁰. Saw some flocks
of alpacas. The valley grad-
ually narrows & rises to La
Raya the summit that divides
the waters flowing into Lake
Titicaca & then flowing
into the Amazon (14,153 ft)

The valley falls to Cuzco.
(11,007 ft). The cultivated fields
begin soon after passing La
Raya. At first only barley and
beans. The beans are called
Habras - the seeds larger than
kitchen beans & brown or purple.
At 11,650 corn appeared and the
good fields were planted with
the seeds of the beans. At
10,000 - 10,500 (there is a rise of 1,000 ft
to Cuzco) there is much corn
- also barley & beans & potatoes.
At Sicuani they sell at the
train robes and mats made
from skins of alpacas. I bought

a small mat for 3 soles.
At Cuzco I met several people
who spoke English. In the evening
we went out and saw some
of the old Inca stone walls.
I went by and got a photo taken.
On the train before reaching
Cuzco a young fellow got on
who represented the Hotel
Colon to which Col. Storde
had already telegraphed
for rooms, so we consigned
our baggage to his care. About
this time I noticed a vile
odor as of something rotten.
Oh ho! That skin or meat
I bought was not thoroughly
cured. It was strapped to
my suit case. I found
nothing wrong and smelled it.
On the train
was a Peruvian engineer
who speaks English. He
saw me smell of the skin

he laughed and said that
it was a smell, there
something rotten around here.
"What is it?" I innocently asked
"Why, it's that hotel boy!"
Sure enough, every time he
came near the smell was very
evident. The joke was on me.
Nov. 28.

In the forenoon I went in
an auto with Col. Stordey
to inspect a farm. The house
was striking of looking out
for a model farm - good
corn. We were invited to stay
to lunch. It proved to be a
heavy meal. Being chopped
meat, vegetables, chicken, green,
hard boiled eggs, meat patties, pastry,
buns, mince, ~~sausages~~, fresh
strawberries, preserved blue-
berries, coffee. - 10 courses.
I had to quit cold at the end
of the fourth course. There

was no wine, 2 bottles of wine,
and beer. There was some surprise
& disappointment when I refused
liquor and when I refused to
smoke the last remark that I
didn't eat meat. I must be
quite dead. Col. Stordey satisfied them
as to both food & drink. They gave
a liberal dose of wine and
fresh strawberries.

In the afternoon I took a
few pictures, but stuck a-
round the hotel because the
Peruvian was going to come
and bring a present which
changed the construction of
the railroad from Cuzco north
to Orubambilla (+ finally to Santa Rosa).
They did not come till evening &
then took supper with me.
Nov. 30

Later in the night I was awakened at
12⁰⁰ by the band playing & by a
startling noise which proved
to be a succession of

instructions. This meeting of the
brethren continued about 15
minutes. I am not here
able to do much today because
I was waiting on the motions
of others. I went out to the
president to see if there was
a letter from Bushkin.
None yet. Tomorrow I go to the
hills. Write to Ram & the others.
Dec. 1

In the forenoon I went calling
up a valley to the north. Got
17 species of grasses - rather
poor collecting. Crossed over
a divide & returned by another
valley. By accident I came
by some ruins (see pictures)
ruins of stone walls wonder-
ful. In the afternoon I took
a way to carry my camera
and went back to these
ruins & took a lot of
photographs including view of
city & (19 walls - 5x7). In the

evening packed to go to Allantay-
tamba. During my absence
Mr. Achua & Panes de Leon
called leaving their cards.
I had letters to them from Mr.
Siegel in Lima. Mr. Romero
Sotomayor the engineer introduced
by Mr. Almenara Butler, has arranged
for a trip for me to Allantaytamba.
Dec 2

Had early cafe con leche
and went to station starting
at 7¹⁰. Senor La Torre was
there to meet me. He seems to be
the chief push of the road. The
road is narrow & runs
from Ayacucho ultimately to Santa
Ana but the train runs only
to Kilometer 63 near Urubamba.
At Km 67 is Allantaybambesi
a small town where I am
stopping. I had breakfast (almu-
ergo) at the terminus - a gas shack
there is no town. Then I walked

To Allantau (Amber), on my
coming by baggage (suitcase,
camera, sharp camera) I con-
fined my small camera. I went
about noon & went out
collecting immediately. Got
a fair collection - 30 numbers
about 24 species.

The hotel is a primitive affair
like some of those I was in in
Ecuador. My room is in second
place but has a dirt floor, one
window looking out on the plaza.
It is large, has four beds, only
one (mine) made up. I don't
know whether I have company
or not. There are clothes hung
up in the room. I am wondering
if my bed is clean - tonight will
tell. There are two mattresses
lifted - just the place for bugs!
And I don't have my cot with
me. I stored my 2 books & 3 suits
at Cuzco because I had to go
light. There is no washbowl &

picture, but a towel hangs on the
wall - maybe wash water comes
later. A candle rests on a table
so I will go to bed now - but can I
rest? After coming in I had
a bottle of mineral water (the
brand is called Jesus) and
got the landlady to give me a
cup of tea. (no milk - "no hay
leche") Had some so-called bread
with it - a funny flat thing
like a brown-ozen - about 5
inches long - no butter. I see
my priest here if I have
to stay till Thursday (the day
the train returns to Cuzco).

On the train I got into conversa-
tion with a man (in my
own Spanish). He introduced a
new subject & I couldn't get
the hang of it and probably
lost the key word that I didn't
know. He spoke this & another
word. Pulega and piojo. I looked

~~At~~ Dec 3

Turn up in my little dictionary
Pulpa - flesh; projo - louse. So that
was where he was talking
about. He was beginning to tell me
how many of them were in
Bolivia's nation & was going &
if I was not troubled with them
in Peru. I began to feel things
bawling on me!

While I was getting accustomed I
had camp and then they called me
if I wanted eggs & I called for
medium birds. Pretty soon the
boy brought me a cup & milk
but of small size. I laboriously
told him I wanted a large cup
for my tea because I wanted
much hot water & milk. I saw
him mulling to himself & finally
when he saw the cup was for
my boiled eggs, he came back.
I had supposed the eggs went in
a glass & had by me. But I got
back the eggs & the tea.

Arose early & after coffee & 2 eggs
Lante (at 7⁰⁰) on horse back with
Mr. La Torre & another senior
for the camp where the men
are working on the grade. Mr. La
Torre is paymaster & he carried
his saddlebags full of silver to
pay up the men. The horse
was a fine pack & rode well.
I had an English saddle. At
our place where we stopped
I had a chance to look with
a man in English - a
great relief after laboring
so much with the Spanish.
We had breakfast at the
camp & I had our horse
to explore. I got seven
additional passes. I took
several pictures with my
small camera. Snow peaks
with forests were in plain
view. The road is graded to
about kilometre 80. It is

about 20 km further to Santa
Ana the terminus of the road,
it is narrower gauge. The
valley from Allamdi (or) to
to the end of the route is
flat & fertile - all cultivated
with steep mountain slopes on
each side. Lower the valley
contracts so that the journey
will be difficult. We
returned about 4⁰⁰.

Oh! I was not troubled
with insects in the air and
slept comfortably except
those according to the
Tome who slept in the same
room, I had nightmare
(so I interpret his statement)

I found an interesting group
of small species of *Cratichneumon*.

There are many species of *Cactus*
here, one, in frequent rocky slopes,
is a cluster of hundreds of little
bulbs, $\frac{1}{2}$ - 1 inch diam (mammillaria)

with comparatively large scarlet
flowers - larger than the button.
I got a picture of a big
cactus, almost smothered with
a small species of *Tillandsia*.
At the camp, the hills were cov-
ered with corn fields over
the sides were of interwoven scrub
bushes which is common through-
out the valley. At one place
I saw 3 stacks of hay. The
chief crop is corn. No llamas
were seen, the carrying being by
mules & horses. The English-
speaking gentleman had 5 native
peons piled up by his house.
He said they were well-adapted
to the stony fields & an American
plow could not be used.

I saw a great variety of flowers,
many that I have not seen
elsewhere - small *Tillandsia*,
numerous shrubs & trees, etc.

Dec. 7
Mr La Torre went to Urubamba

This morning I will not return.
The other man went with him.
I am left to work and my
own salvation. I go to the
commis. of the road on Thursday
to take the train at 1⁴⁰. If there
is an auto car going soon
the La Force will let me know.
There are no champs for the first
time I had yesterday. Mr. J.
provided me with a boy who
took me to the ruins (starting
at 8⁴⁰) and who carried
my press & large camera. The
ruins are right at the edge of
the little town. I spent all
the forenoon examining & then
to the ruins. I wish I knew
more about them. They are
magnificent. At the top of
the hill are several immense
stone walls many times
of a kind of stone not found
near by. The walls are of great

interest to me because the stones
are so perfectly fitted & without
mortar or cement. Occasionally
through the action of various forces
a stone has shifted & the smooth
uncemented surface is shown.
As a rule the stones are irregular
in shape. No attempt seems to
have been made to cut a stone
to a regular shape. But the very
irregular are made to conform
with marvellous perfection.
Then there the towers of walls
of stone are perfectly level with
ground enough to withstand the
action of time. There are
corners on steep hillside. There
were all cultivated at one time
but I suppose the pressure of
population. Now they are un-
used & grown up to weeds.
The steep rocky cliff is curious
by cut. Seats (?) & steps without
number are cut into the solid
rock. As one looks at it now

our minds what it was
all for. Richer & insets are
numerous and without any
apparent purpose. There is
very little carving or ornament-
ation. Some boulders (?) have
a little carving mostly in straight
lines. One got little of real
meaning out of such a cursory
examination & I was able to
find. The ruins manifested by
Bingham (Machin Pichu) are
down the valley several miles.
Too far for me to go. In the
afternoon I went alone with
my camera (5-47). I was hin-
dered some by the rain but car-
ried my portfolio. I went down
the valley road (common) took
pictures. There are two immense
stones in the road, some rods
apart, that are like the big
stones on top of the hill. They
are cut to shape and appear
to have been abandoned on

the way to the hill from the
granaries across the valley. They
weigh many tons. One is 20x10
feet and small but thick (partly
buried) I have photos of both
these boulders with pictures (34
in all for the day). I was taking
pictures from 8-11³⁰ and 1-4.
I showed the Inca stone walls,
one with Inca wall below &
Spanish or modern wall above
with the disappearance of the latter.
A bridge across the river on piers
which appear to be Inca (because
of the very large stones, neatly set). The
Inca wall, can be easily told.
They are all through Cuzco and
all the way down this valley.
The bridges through the valley
are very numerous - & all unused
now. I think the Carles mephon
are the cliffs. Cliffs covered with
Tillandsia usneoides.

I have only candle light for
evening work. But I have a com-

portable rocking chair. The bed
being good and clean, I sleep
comfortably. Taking it all together, I
am more comfortable here I have
been in some more pretentious places.
One of my crowned teeth is beginning
to hurt me - I may have trouble
with it. Tomorrow I will try to get
up into the hills - it will be a stiff
climb.

Dec 5

Started at 8⁰⁰ to collect, in-
tending to get up some valley
to high land. Went up a large
valley which comes in to the
main valley from the west
(N.W.). The river flows the valley
near its mouth & I took a photo
of the valley from the top of the
river showing numerous terraces
on the level ground. I followed up the
valley about a mile & then went
up a side valley or ravine on the
left. The terraces are in the lower
part of this smaller valley. I found

Three these dry terraces are used
now, except the uppermost ones,
mostly maize & beans (habas), &
old stores shows that they have
been in use also. I went
up past these on a good trail
following up a stream. The trail
is used by wood gatherers, the wood
being obtained far up at the
head of the valley. About half
way up the ground became moist
and the vegetation luxuriant.
Trees appeared. But on the hills
at each side the grass was
dry & not in flower. The trail
went on through the trees, becoming
more difficult all the time.
I got a Muhlenbergia (carnegiei) in
good condition, also a large
additional Bromus (of the purgans
type) - a few rock ferns for
Mexico - Several species of grasses
but not much of interest and
from the two mentioned. I con-
tinued on well up - the climbing

difficult. I think I succeeded
more than I was just. Finally
seeing evidence of habitation
on the other side (N.E.) - small
fields - I crossed over and found
a trail leading to a hut. I then
followed down on another slope
this being in the open and
much easier than returning by
the trail I had ascended.
Reached the hotel at 12³⁰. Arranged
my things - note - rested - during
the afternoon. Mr. La Torre re-
turned about 4⁰⁰ & will go with
me to Cuzco.

I have seen many pack ani-
mals going through the plaza in
both directions - mostly Andean
some Peruvian - today in large
herd of llamas (these are
mostly in higher regions). Mr.
La Torre tells me that the
cargos are mostly Cuzco, leaves
from the mountains to the river
Cuzco R.

Dec 6 The forenoon
was pack up. Had breakfast
(almuerzo) at 10⁰⁰ and started
for the train about 11⁰⁰. Wait
Horsbach, a man carrying my
the baggage. Train left at 1³⁰
that time at the terminus to
pick up a few things. Got
a big sleep with plumes and
a chair that I do not move.
Arrived at Cuzco at about
5⁰⁰. The hotel found letter
from Buchlein. I tried to tele-
graph him to go to La Paz
but the line is interrupted
& I must wait.

Dec 7

Got off my telegram to Buchlein
at 8⁰⁰ the letter being mailed.
"Returned from Alcantaralito.
I leave for La Paz Saturday. Meet
me there as soon as possible"
addressed to "Alto Buchlein care Guatita
Correccion Aregoupa." Signed
A. S. Hittreck. During the forenoon
did various things.

Mr Evans went with me to the
Temple of the Sun - helped me get
Postcards, post cards - introduced
me to the bank, helped at the bank.
Saw Sr. La Torre who took me to
Mr. Romero, the engineer in charge
at whose orders I may transmit
money on the Allandaymisho bus.
Went on to see Mr. Ponce de Leon
to whom I had a letter from
Mr. Giesecke. Helped me get a pair
of moccasins, a hand bag used
as a pocket, a springy spoon.
Went to bank & got 50^{ms} - one dollar &
credit at 4^{ms} to Peruvian pound.
the buying rate being 3.73 on 4. 1/2.
Got lunch at 12⁴². Mr. Parape,
Professor of Chemistry in the Univ. of
Cuzco called at 1⁰⁰ he has attended
Leland Stanford Univ. I packed my
baggage and it was called for
at 2⁴⁵. With the Hotel Interpreter I
went to the station purchased
my ticket 54²⁰ Soles (see La Paz) &
stuffed my baggage (38^{ms} Soles) & the

free allowance is 50 Kg. My locker
tickets are 32 Kg. Mr. Alhosa called in
afternoon came again at 4³⁰. He took
me to a fine church having the "fine
cloister in S.A." and to the Cathedral
with its fine solid silver altar &
and I got a peek into the
University of Cuzco. I have put up
in a little package - a safety razor
from Mr. La Torre which I hope to
give Mr. Romero tonight.

Die 8

Was called at 5¹⁵, Fussed
about desayuno means they
brought me huevos pasados. These
are "passed eggs" - that is, boiled
eggs passed through hot or
boiling water so they are warmed
but not cooked. I sent one
back & had them fried.
Went off at 6⁴⁵, Mr. La Torre
came down to see me off.
Took chair car. Mr. American
Mr. Romero & wife of Pichla
were also aboard & going
to La Paz. Got to Puno some

late. Hand baggage examined
here but trucks go on to La
Paz. Supper on boat at 8:30
nice little cabin. The boat seems
very good. A Sierran where
we got breakfast) bought
an extra alpaca mat - 2 1/2 Soles
Dec 9

Got into Inagui about 7:00 am.
and thus had a view of the
lake or rather the southern end.
The view is not very impressive
as the mountains are not high near
the coast. The ride is black & cold
and one does not care to stay
on deck even with overcoat on.
Alt. 12500 ft. Left soon in
train for La Paz arriving a little
after noon. At Tiahuanaco saw
briefly the pre-Inca ruins - not much.
At Alto (13396 ft) near La Paz the
iron power becomes electricity.
We had been traveling over a plateau
and no city in sight. About a few
hundred feet from Alto station

we came to the edge of the valley
or bowl in which is La Paz &
there was the city & small one
before us 1400 feet below -
a very beautiful sight. The
Py winds slowly down to the city.
We were whisked to the Paris
Hotel (Grand Hotel Paris) in an
auto. It is on the main plaza &
is the best hotel I have seen
in the 3 countries. I have a good
room & the food is good - several
clean toilets (12 Bolivians per day
a bath is about 30 cents now)
I went after lunch to the Amer.
Legation & got my mail - 20 letters!
& spent the rest of the afternoon
reading them. Alt. of city 12024 ft.
Bath & chilly here. Wrote to Rania

Dec 10

Got up rather late because I felt
slightly indisposed - as if I had
caught cold. I am used to mental
strain & history. Went to bank &

draw \$100⁰⁰ - (325 Bolivianos) & changed
65 soles. Before that went to By Sea
& got my baggage through the
Customs house - no fee paid
on arrival & no duty charged.

The 2 trunks & 3 sacks were
taken to the hotel & back of
me. Went to cable office &
sent a telegram to Buchen.

"Alto Buchen, Cuzco, Peru.
Arrive. Oversee friends
Magera Hotel ~~Hotel~~ Hotel Peru.
Cost 3⁰⁰ Bol. After dinner went
to Amn La Plaza, got another
letter from Mr C. Saw the Secretary
The Minister is supposed to be out
his way from Panama. May
well that a parcel was going
out for us. - closed at 8⁰⁰ pm.
Got back & came right back to
hotel to put a package of my
film - 9 dozen in packs - some 8
rolls. Then messengers called
for them. Later they sent to

The hotel 1 letter from Raim &
2 from Mr C. The boxes have
come from Guayaquil & the
cable from Lima received.

I have changed my room.
The one I had from Nov 12 Bol
per day (3⁶⁰) I have gotten the
same kind of room but on one floor
higher for 10⁰⁰ Bol (3⁶⁰) It is a good
room with running water & electric lights.
2 tables & chairs (I had a table added)
and two cupboards. I have a good
view of the I. Lima out my window
I took a photo tonight just as the
sun was leaving it. Sent my
letter to Raim. Bought a map
of Bolivia & a plane of La Paz.
The weather has been fine today
& yesterday though it is the rainy
season.

Dec 11-

Having an indication of a
cold I went to bed early and
awoke late (8⁰⁰). Went to Amn
La Plaza & had a talk with

Mr. Flack the Secretary (was)
Chargé d'affaires until Mr. Colwell
comes - probably Sunday)

I had 2 letters of introduction
sent me away. Consulted
with him about the trip to
Santa Barbara - especially the
trip to Tarifa suggested by
Mr. Conitt. He gave me a note
to Mr. Touchart who is in charge
of the construction of the Ry. from
Achoa to Villazon on the Argentine
boundary. The road runs from
La Paz is completed to Achoa
and under construction the
rest of the way. Raily are laid
south of Acha & north from
Villazon. I saw Mr. Touchart
& he is going to help me when
I make my trip south. He
estimated that it would take
about 15 days to make the
trip to Tarifa as it is now the
winter season & I must pay
much in the way of expenses

cannot go by auto. I think I
cannot take the time to do this.
But I hope to go to Villazon.
Mr. Touchart will give me the
particulars of the construction
between the camps etc. I will see
him again when I get my
plans arranged. Mr. Flack
invited me to play tennis
at the legation at 2³⁰. So
after lunch I went over
there. Only 3 players could
be made - the clerk
being the third. Mr. Flack
invited me to tea at the
"Strangers Club" at 5⁰⁰
He has arranged so that
I have the privilege of the
club. I will go there and
read up from the magazines.
At the lunch was also Mr.
McDonnell the American Consul
here. He asked me to lunch
at the Club tomorrow at 12⁰⁰
to meet some gentlemen who
can help me to arrange my
trips. Got telegram today from

Buchanan saying he was
sorry but he could not
come. I don't understand
why and wrote today to him
also in the direction to find
out why he declines ap-
proving me the impression that
he would come.

Dec 12

Got my hair cut. Bought a
1923 map of Bolivia (11 sols).
Went to see Mr Hoppe of the
Standard Oil Co. he was
one time I saw Mr Ker,
who invited me to dinner
to night or 7th. He will
call for me on 7th. Later
he told me Mr Hoppe
will also be there. Mr Ker
is well acquainted with
Mr Turnbull & Mr Pappe.
His wife is a cousin of Bob's
I believe. He was much surprised
to hear that Pappe was married.
He sent a young man with
me to get information about

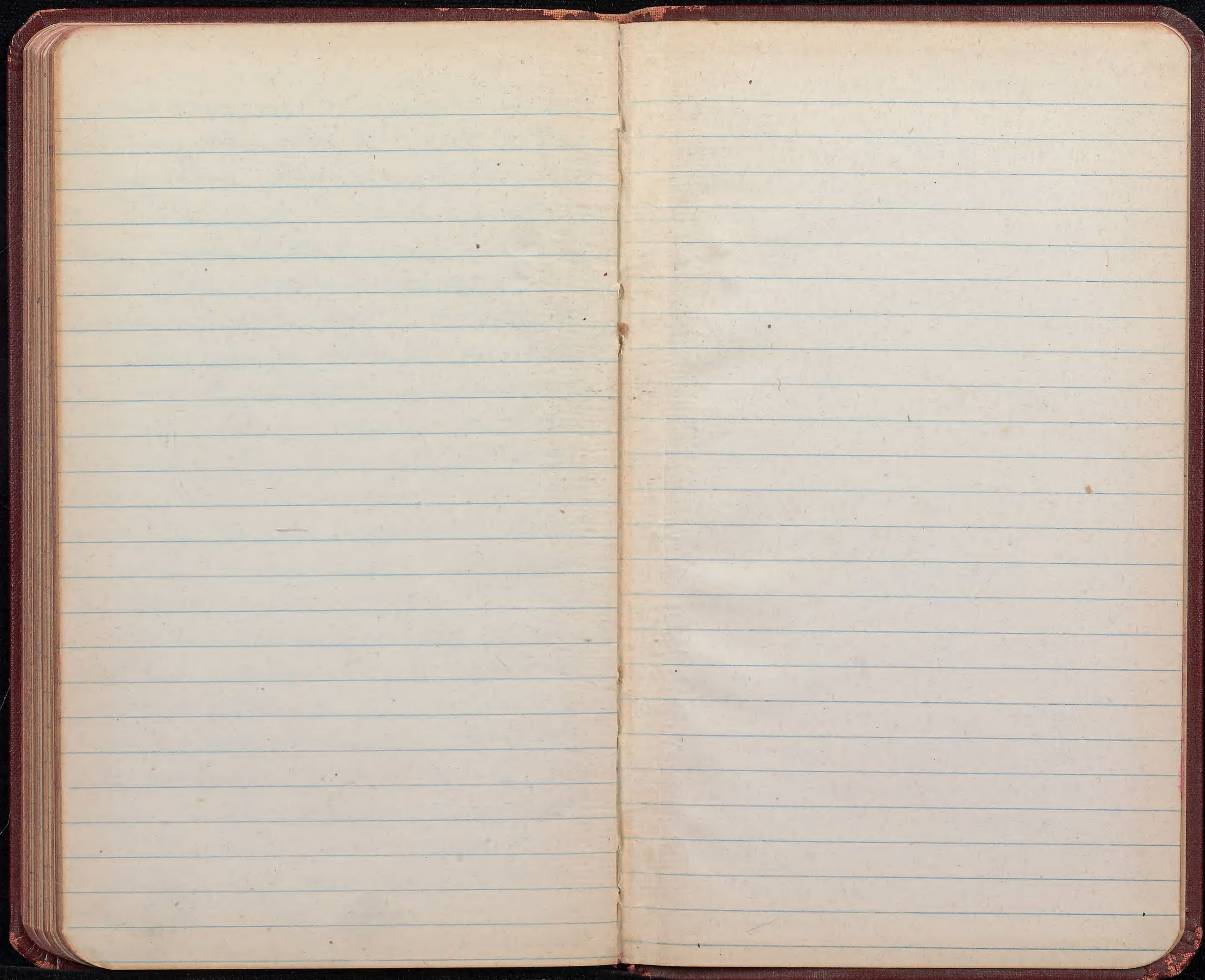
getting to Sorata (Illampu). But
was Thursday & Friday leaving
the following day (30 sols each way
starts 7:30 & gets to 1/4 day from
the town of Sorata. Rest of way by mule.
Bought 10 kg flour - 30 cents
per kg. At 12th went to lunch in
Sherman's Club with Mr Flach.
Others present Whitaker (Chd. Forest
Agent here), Barber McDonald
(consul). Mr Barber knows the
country well & gave me advice.
Illampu more accessible
and I will try that is about a 5 day
trip. But I want someone with
me. They hoped find someone to
organize a trip to Yungas. Mr Flach
& going to give me a letter to the
Yungas Railroad people who
Mr Donker will help me on this
trip. Much depends now on getting
someone to go with me. Sherman
is guide & interpreter. In the evening
had dinner with Mr Oles Ker & Mr Hoppe
(a Dane). On return to hotel a message

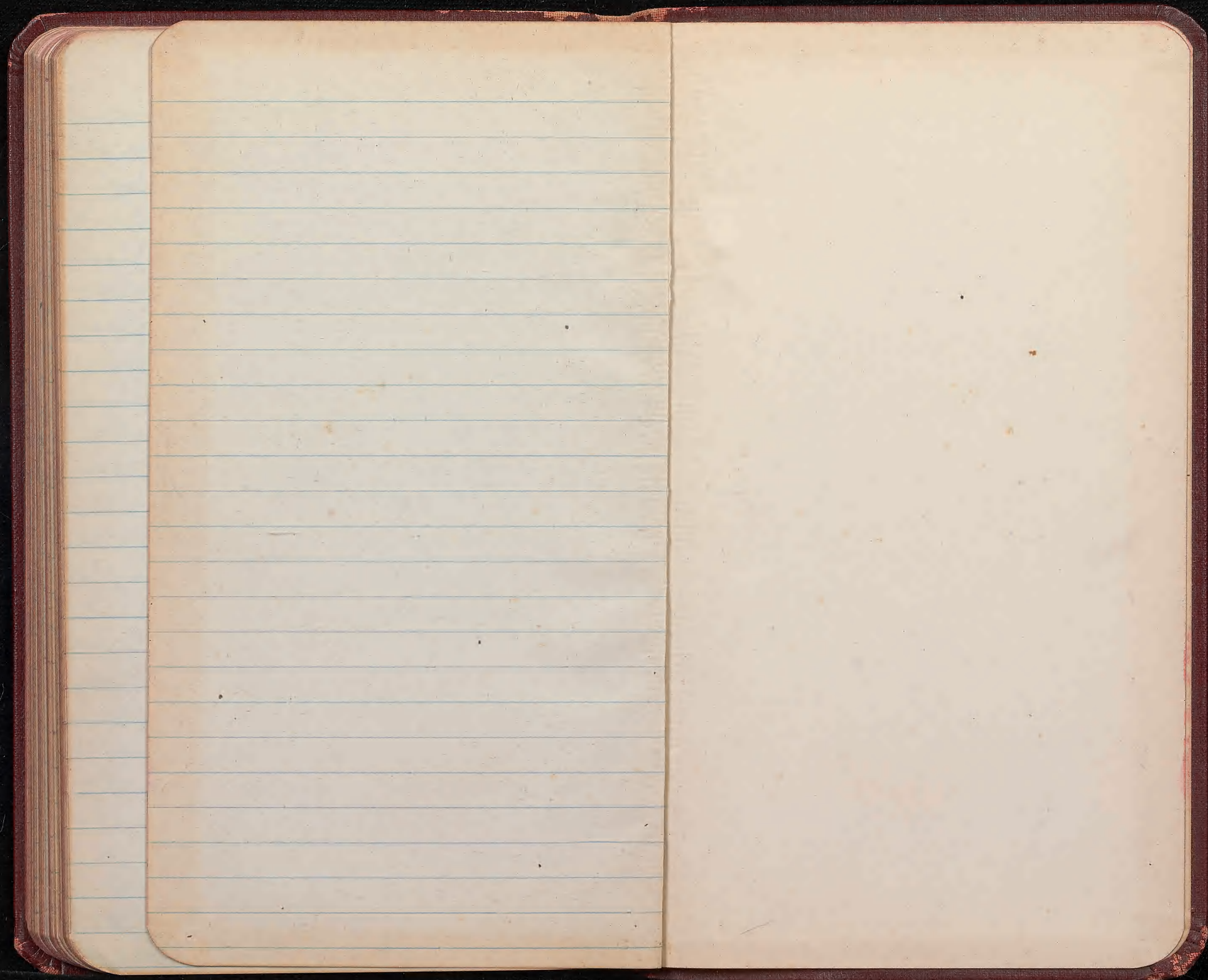
from Mr. Flock saying that
Mr. Dagg would go with me
to Illimani & to meet him at
the Club at 11⁰⁰ am.

Dec 13

At 11⁰⁰ I went to Thompson's Club
and met Mr. Dagg. I arranged
with him to accompany me on
an trip to Illimani. I paid him
8⁰⁰ for the day. He is an English
man but his head is ^{Robinson} ~~with~~ a long
hair - speaks Spanish - has had
wide experience in travel in Bolivia.
A young man - well recommended
by Flock - Mr. Dagg - Barclay &
he takes the responsibility for him, as
he has arranged to start to-
morrow morning at 8⁰⁰. 3 Saddle mules,
1 car & mule, & man to look after
the animals. 25 Bs a day. He has
in a supply of food. I take with
me - 2 blankets - saddle -
a spirit lamp, salted food. About 5
day trip. I take about 150 Bs
with me. The rest is my friends

I put in sealed envelope and
gave it to Mr. Flock who gave it
to Mr. McDonald who put
my seals on it & put it in
a safe. Went to dinner with
Mr. Dagg at Thompson's Club. Paid
bill at hotel. Got telegram from
Buchanan "Estare muy bien
próximo sea. Buchanan"





1798 1/2

